

form is sometimes, though quite unnecessarily, separated as *O. lanifera*. The genus occurs fossil in the Siwalik deposits of India, the species being known as *C. bracti/giatha*:

Fam. 2. Hadiaerodidae.—This is a family of totally-extinct Cats which range from the Eocene down to the Pleistocene. Their general structure is like that of the Felidae; but they differ in a number of skeletal features. Thus there is an alisphenoid canal, and, as in Bears, there is a postglenoid foramen. There is also a distinct carotid foramen, which does not occur in the true Cats. The teeth are often distinguished by the huge size of the superior canines, which are " weapons for penetrating wounds, without rival among carnivorous animals." These must have been displayed at the sides of the chin when, the mouth was closed, and it has even been suggested that the animal possessing these exaggerated canines could hardly have properly closed its mouth. The lower canines were often on the contrary much reduced, and in fact incisor-like. In tracing the series of these Cats we find a gradual reduction of the teeth from a more nearly complete number down to the specialised dentition of the existing Cats. The genus *Proaelurus*, Miocene in range, had four premolars in each jaw, and two molars in the lower and one in the upper. This is the greatest number of teeth found in any member of the group.

The resemblance of this genus to *Cryptoprocta* has been insisted upon. *Archaelurus* has suffered a reduction, since one premolar in the lower jaw has disappeared, its formula being thus $\wedge \ \% \ @ \ i \ -P^{111}$ lit M- i- The next stage is shown by *Dinictis* with three premolars in both jaws. There are a good many species of this genus -which are all American and Miocene. This genus has five toes upon the hind-feet, and was probably plantigrade. It had retractile claws.

In the genus *Nimrurus* the dental formula is still further reduced. Another premolar of the lower jaw has gone, the formula being thus I $\S$ - C -J- Pm -|- M $\wedge$ -. *Nimrurus gomphodius* was a Carnivore about the size of a Panther. It has no third trochanter upon the femur, which process is present in the

corresponding bone of *Diwictis* JPogonodo'n* was
an equally
large animal in which the premolars were
three in each
jaw, but the molars have become reduced to
one in the
lower, as they have in this and other genera in
the upper

VOL. X

2 i>